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DN 98:50011

ED Entered STN: 12 May 1984

TI **Particle** agglutination assay

IN Masson, Pierre Lucien; Collet-Cassart, Daniel; Magnusson, Carl Gustav

PA International Institute of Cellular and Molecular Pathology, Belg.

SO Eur. Pat. Appl., 26 pp.

CODEN: EPXXDW

DT Patent

LA English

IC G01N033-54

CC 9-2 (Biochemical Methods)

Section cross-reference(s): 1, 2

FAN.CNT 1

|      | PATENT NO.                        | KIND | DATE     | APPLICATION NO. | DATE     |
|------|-----------------------------------|------|----------|-----------------|----------|
| PI   | EP 61857-                         | A1   | 19821006 | EP 1982-301265  | 19820312 |
|      | EP 61857                          | B1   | 19851106 |                 |          |
|      | R: BE, CH, DE, FR, GB, IT, NL, SE |      |          |                 |          |
|      | AU 8281247                        | A1   | 19820923 | AU 1982-81247   | 19820310 |
|      | AU 548003                         | B2   | 19851114 |                 |          |
|      | JP 57206859                       | A2   | 19821218 | JP 1982-40319   | 19820316 |
|      | JP 05000665                       | B4   | 19930106 |                 |          |
|      | CA 1174596                        | A1   | 19840918 | CA 1982-398498  | 19820316 |
|      | US 4427781                        | A    | 19840124 | US 1983-358566  | 19830124 |
| PRAI | GB 1981-8112                      | A    | 19810316 |                 |          |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|------------|-------|------------------------------------|
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| EP 61857 | IC | G01N033-54 |
|----------|----|------------|

AB A method is described for the determination of antigens and haptens (e.g. drugs,

hormones, vitamins) in human or animal body fluids by **latex particle** agglutination immunoassay which consists of mixing the sample with **latex particles** bearing the same antigen or hapten as that determined, with an agglutinator (rheumatoid factor, complement Clq, mouse serum, or ascitic fluid), and with sufficient antibody to cause 40-80% agglutination of the **particles**. The extent of agglutination is then measured by counting the unagglutinated **particles**. A **protease** (e.g. pepsin) and 1 or more chaotropic agents are also added to the sample to remove interfering proteins and nonspecific interactions, resp. Thus, the method was used with an automated system to determine digoxin (I) in serum by using rheumatoid factor as the agglutinator, anti-I IgG, and a I-bovine **serum albumin** (BSA)-**latex** conjugate. The latter was prepared by incubating activated **latex** overnight at 4° with a BSA-I conjugate prepared by the periodate method. The calibration curve extended from 0.4-6.0 µg/L and the results correlated well with those obtained by radioimmunoassay. The method was also used for the determination of TSH.

ST body fluid antigen detn; hapten detn body fluid; immunoassay **latex** agglutination antigen hapten; hormone **latex** agglutination immunoassay; drug **latex** agglutination immunoassay; vitamin **latex** agglutination immunoassay; serum digoxin **latex** agglutination immunoassay; TSH **latex** agglutination immunoassay

IT Complement

RL: ANST (Analytical study)

(Clq, in antigens and haptens determination in animal and human body fluid

by

**latex** agglutination immunoassay)

IT Body fluid

(antigens and haptens determination in, by **latex** agglutination immunoassay)

IT    Pharmaceutical analysis  
       (determination of, in body fluids of human and animal by **latex**  
       agglutination immunoassay)

IT    Antigens  
       Haptens  
       Hormones  
       RL: ANT (Analyte); ANST (Analytical study)  
       (determination of, in body fluids of human and animal by **latex**  
       agglutination immunoassay)

IT    Blood analysis  
       (digoxin determination in, by automated **latex** agglutination  
       immunoassay)

IT    Ascitic fluid  
       Rheumatoid factors  
       RL: ANST (Analytical study)  
       (in antigens and haptens determination in animal and human body fluid by  
       **latex** agglutination immunoassay)

IT    Blood serum  
       (in antigens and haptens determination in animal and human body fluids by  
       **latex** agglutination immunoassay)

IT    Immunochemical analysis  
       (**latex** agglutination test, for antigens and haptens)

IT    80295-33-6  
       RL: ANST (Analytical study)  
       (CIq, in antigens and haptens determination in animal and human body fluid  
 by        **latex** agglutination immunoassay)

IT    20830-75-5  
       RL: ANT (Analyte); ANST (Analytical study)  
       (determination of, in blood serum by automated **latex** agglutination  
       immunoassay)

IT    9002-71-5  
       RL: ANT (Analyte); ANST (Analytical study)  
       (determination of, in body fluids of animal and human by **latex**  
       agglutination immunoassay)

IT    9001-75-6    9001-92-7  
       RL: ANST (Analytical study)  
       (in antigens and haptens determination in animal and human body fluids by  
       **latex** agglutination immunoassay)

IT    Pharmaceutical analysis  
       (determination of, in body fluids of human and animal by **latex**  
       agglutination immunoassay)

IT    Antigens  
       Haptens  
       Hormones  
       RL: ANT (Analyte); ANST (Analytical study)  
       (determination of, in body fluids of human and animal by **latex**  
       agglutination immunoassay)

IT    Blood analysis  
       (digoxin determination in, by automated **latex** agglutination  
       immunoassay)

IT    Ascitic fluid  
       Rheumatoid factors  
       RL: ANST (Analytical study)  
       (in antigens and haptens determination in animal and human body fluid by  
       **latex** agglutination immunoassay)

IT    Blood serum  
       (in antigens and haptens determination in animal and human body fluids by  
       **latex** agglutination immunoassay)

IT    Immunochemical analysis  
       (**latex** agglutination test, for antigens and haptens)

IT    80295-33-6  
       RL: ANST (Analytical study)  
       (CIq, in antigens and haptens determination in animal and human body fluid  
 by        **latex** agglutination immunoassay)

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       (determination of, in blood serum by automated **latex** agglutination  
       immunoassay)

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       RL: ANT (Analyte); ANST (Analytical study)  
       (determination of, in body fluids of animal and human by **latex**  
       agglutination immunoassay)

IT    9001-75-6    9001-92-7  
       RL: ANST (Analytical study)  
       (in antigens and haptens determination in animal and human body fluids by  
       **latex** agglutination immunoassay)

NSWER 1 OF 5 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN  
 AN 1993:166109 BIOSIS  
 DN PREVL199395087159  
 TI A **turbidimetric latex** inhibition immunoassay for  
 detergent solubilized lipopolysaccharide: Application to Brucella cells.  
 AU Bowden, R. A. [Reprint author]; Van Broeck, J.; Dubray, G.; Limet, J. N.  
 CS INRA Centre de Recherches de Tours, Unite de Pathologie Infectieuse  
 Immunologie, 37380 Nouzilly, France  
 SO Journal of Microbiological Methods, (1992) Vol. 16, No. 4, pp. 297-306.  
 CODEN: JMIMDQ. ISSN: 0167-7012.  
 DT Article  
 LA English  
 ED Entered STN: 31 Mar 1993  
 Last Updated on STN: 31 Mar 1993  
 AB A **turbidimetric latex agglutination**  
 -inhibition assay was developed for the estimation of the smooth  
 lipopolysaccharide (S-LPS) content in Brucella cells. Proteinase K  
 (PK)-digested Brucella cell lysates were distributed in flat-bottom  
 multiwell plates and incubated with an anti-S-LPS monoclonal  
**antibody** (mAb). Unbound **antibody** was then titrated by  
**agglutination** of S-LPS-coated **latex particles**,  
 in the presence of human rheumatoid factor (IgM anti-IgG) to enhance  
**agglutination**. The percentage of **agglutinated**  
**particles** was measured in a microplate spectrophotometer by  
 monitoring the decrease of absorbance at 405 nm. The inhibitory effect of  
 sodium dodecyl sulfate (SDS) present in the samples, was prevented by the  
 addition of **bovine serum** albumin (BSA). Recovery of  
 S-LPS was not influenced by the concentration of the other components of  
 the bacterial lysate. Rough LPS (R-LPS) was not detected in contrast to  
 O-polysaccharide (O-PS), which was effectively assayed. The intra-assay  
 variation coefficient was lower than 5%. The range was suitable to show  
 differences in the LPS content between clones of the same Brucella  
 vaccinal strain. The same samples could be studied simultaneously by  
 sodium dodecylsulfate-polyacrylamide gel electrophoresis (SDS-PAGE).  
 CC Biochemistry methods - Lipids 10056  
 Biochemistry methods - Carbohydrates 10058  
 Biophysics - Methods and techniques 10504  
 Pharmacology - Immunological processes and allergy 22018  
 Morphology and cytology of bacteria 30500  
 Physiology and biochemistry of bacteria 31000  
 Microbiological apparatus, methods and media 32000  
 Immunology - General and methods 34502  
 Immunology - Bacterial, viral and fungal 34504  
 IT Major Concepts  
 Biochemistry and Molecular Biophysics; Methods and Techniques  
 IT Miscellaneous Descriptors  
 ANALYTICAL METHOD; IMMUNOLOGIC METHOD; SMOOTH LIPOPOLYSACCHARIDE  
 CONTENT; VACCINE STRAIN  
 ORGN Classifier  
 Gram-Negative Aerobic Rods and Cocci 06500  
 Super Taxa  
 Eubacteria; Bacteria; Microorganisms  
 Organism Name  
 gram-negative aerobic rods and cocci  
 Brucella  
 Taxa Notes  
 Bacteria, Eubacteria, Microorganisms

ANSWER 5 OF 5 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1993:208841 CAPLUS

DN 118:208841

ED Entered STN: 29 May 1993

TI A **turbidimetric latex** inhibition immunoassay for detergent-solubilized lipopolysaccharide: application to Brucella cells

AU Bowden, R. A.; Van Broeck, J.; Dubray, G.; Limet, J. N.

CS Lab. Pathol. Infect. Immunol., Inst. Natl. Rech. Agron., Nouzilly, Fr.

SO Journal of Microbiological Methods (1992), 61(4), 297-306

CODEN: JMIMDQ; ISSN: 0167-7012

DT Journal

LA English

CC 9-10 (Biochemical Methods)

AB A **turbidimetric latex agglutination**

-inhibition assay was developed for the estimation of the smooth lipopolysaccharide (S-LPS) content in Brucella cells. Proteinase K (PK)-digested Brucella cell lysates were distributed in flat-bottom multiwell plates and incubated with an anti-S-LPS monoclonal **antibody** (mAb). Unbound **antibody** was then titrated by **agglutination** of S-LPS-coated **latex particles**, in the presence of human rheumatoid factor (IgM anti-IgG) to enhance **agglutination**. The percentage of **agglutinated particles** was measured in a microplate spectrophotometer by monitoring the decrease of absorbance at 405 nm. The inhibitory effect of SDS present in the samples was prevented by the addition of **bovine serum** albumin (BSA). Recovery of S-LPS was not influenced by the concentration of the other components of the bacterial lysate. Rough LPS

(R-LPS)

was not detected in contrast to O-polysaccharide (O-PS), which was effectively assayed. The intra-assay variation coefficient was <5%. The range was suitable to show differences in the LPS content between clones of the same Brucella vaccinal strain. The same samples could be studied simultaneously by SDS-PAGE.

ST **turbidimetry latex** immunoassay lipopolysaccharide Brucella

IT Lipopolysaccharides

RL: ANT (Analyte); ANST (Analytical study)

(detection of, from smooth-phase cells in Brucella melitensis, **turbidimetric latex agglutination** -inhibition assay for)

IT Brucella melitensis

(lipopolysaccharide from smooth-phase cells detection in, **turbidimetric latex agglutination** -inhibition assay for)

IT Temperature effects, biological

(heat, on lipopolysaccharide activity, in Brucella melitensis)